

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Patent of:

Tetsuya IIDA et al.

Patent No.: 6,972,979

Appln. No.: 10/716,504

Issued: December 6, 2005

Filed: November 20, 2003

For: NONVOLATILE MEMORY

\* \* \*

**REQUEST FOR ISSUANCE OF CORRECTED PATENT**  
**UNDER 37 C.F.R. § 1.322(b)**

ATTN: Certificate of Correction Branch  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Upon review of the issued Patent, it was discovered that the Patent Office mistakenly published original Claims 1-10. However, Claims 1-6 and 8-10 were amended by the Amendment accompanying the Request for Continued Examination filed on January 7, 2005 and subsequently allowed. Note that Claim 7 was not amended during prosecution and thus issued correctly in the Patent.

In view of the substantial discrepancies between the allowed and issued claims, the issuance of a Corrected Patent is believed to be in order and is respectfully requested.

To facilitate expedited processing of this Request, attached is a copy of the Amendment accompanying the Request for Continued Examination filed on January 7, 2005

containing Claims 1-10 as should have been included in the Patent. Claims 1-10 of the Amendment were allowed, as noted in the attached copy of the Notice of Allowability mailed February 11, 2005.

Since the error to be corrected was made by the Office, no fee is believed to be due in connection with this Request. However, please charge any deficiencies or credit any overpayments to our Deposit Account No. 50-1165.

Respectfully submitted,

Date: October 10, 2008

By: /Frederick F. Rosenberger/

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# UNITED STATES PATENT AND TRADEMARK OFFICE

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UNITED STATES DEPARTMENT OF COMMERCE  
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## NOTICE OF ALLOWANCE AND FEE(S) DUE

181 7590 02/11/2005

MILES & STOCKBRIDGE PC  
1751 PINNACLE DRIVE  
SUITE 500  
MCLEAN, VA 22102-3833

EXAMINER

AUDUONG, GENE NGHIA

ART UNIT

PAPER NUMBER

2827

DATE MAILED: 02/11/2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,504	11/20/2003	Tetsuya Iida	XA-9972	5622

TITLE OF INVENTION: NONVOLATILE MEMORY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	05/11/2005

**THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.**

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

### HOW TO REPLY TO THIS NOTICE:

#### I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.**

## PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

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**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

181 7590 02/11/2005

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Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

**Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (703) 746-4000, on the date indicated below.

(Depositor's name)

(Signature)

(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,504	11/20/2003	Tetsuya Iida	XA-9972	5622

TITLE OF INVENTION: NONVOLATILE MEMORY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$300	\$1700	05/11/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
AUDUONG, GENE NGHIA	2827	365-051000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

2. For printing on the patent front page, list

(1) the names of up to 3 registered patent attorneys

or agents OR, alternatively,

(2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 \_\_\_\_\_

2 \_\_\_\_\_

3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent):  Individual  Corporation or other private group entity  Government

4a. The following fee(s) are enclosed:

4b. Payment of Fee(s):

- Issue Fee
- Publication Fee (No small entity discount permitted)
- Advance Order - # of Copies \_\_\_\_\_

A check in the amount of the fee(s) is enclosed.

Payment by credit card. Form PTO-2038 is attached.

The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27.
- b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above.

NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,504	11/20/2003	Tetsuya Iida	XA-9972	5622
181	7590	02/11/2005	EXAMINER	
			AUDUONG, GENE NGHIA	
		ART UNIT		PAPER NUMBER
		2827		
DATE MAILED: 02/11/2005				

## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/716,504	IIDA ET AL.	
	Examiner Gene N. Aduong	Art Unit 2827	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to RCE filed 01-07-05.
2.  The allowed claim(s) is/are 1-10.
3.  The drawings filed on 20 November 2003 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 11-20-03
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

  
 Gene N Aduong  
 Primary Examiner  
 Art Unit 2827

***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on January 7, 2005 has been entered.

***Information Disclosure Statement***

2. The information disclosure statement (IDS) submitted on November 20, 2003 is being considered and re-endorsed by the examiner.

***Allowable Subject Matter***

3. Claims 1-10 are allowed.  
4. The following is an examiner's statement of reasons for allowance: The prior does not teach or fairly disclose a nonvolatile storage device as claimed comprising: a plurality of external terminals; a controller; and a nonvolatile memory, the controller controlling storage operation of data inputted from the external terminals to an area within the nonvolatile memory, the storage operation being dependent on control information inputted from any of the plurality of external terminals, wherein the nonvolatile storage device includes: a plurality of external data terminals to which a data signal is inputted; a pull-up circuit to pull up the external data terminals to a power source voltage; a level detection circuit to detect a potential of at least one of the external

Art Unit: 2827

data terminals; and a data transfer circuit to selectively fetch the data signal inputted to the plurality of external data terminals and then transferring the data signal to an internal circuit as data of a bus width, and wherein the level detection circuit detects a potential of at least one of the plurality of external data terminals when the control information is inputted, and the data transfer circuit determines the bus width depending on a combination of potentials of the a group of the external data terminals.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gene N. Auduong whose telephone number is (571) 272-1773.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoai Ho can be reached on (571) 272-1777. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2827

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GA  
February 03, 2005

  
Gene N Aduong  
Primary Examiner  
Art Unit 2827



XA-9972  
PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of:

Tetsuya IIDA et al.

Appln. No.: 10/716,504                          Group Art Unit: 2818

Filed: November 20, 2003                          Examiner: G. Auduong

For: NONVOLATILE MEMORY

\* \* \*

AMENDMENT ACCOMPANYING  
REQUEST FOR CONTINUED EXAMINATION

Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450

Sir:

Prior to the commencement of continued examination,  
please amend the above-identified patent application as  
indicated below.

Amendments to the claims are reflected in the listing  
of claims which begin on page 2 of this paper.

Remarks begin on page 7 of this paper.

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) A nonvolatile storage device comprising:

a plurality of external terminals;

a controller; and

a nonvolatile memory,

said controller controlling storage operation of data inputted from said external terminals to a ~~region~~  
~~designated by an area within~~ said nonvolatile memory, ~~said~~  
~~storage operation being dependent depending~~ on control information inputted from any of said plurality of external terminals,

wherein the nonvolatile storage device includes:

a plurality of external data terminals to which a data signal is inputted;

~~a pull-up circuit for pulling~~ to pull up the external data terminals ~~up~~ to a power source voltage;

~~a level detection circuit for detecting~~ to detect a potential of ~~at least one of~~ said external data terminals; and

a data transfer circuit ~~for-to~~ selectively fetching the data signal inputted to said plurality of external data terminals and then transferring the data signal to an internal circuit as data of a predetermined bus width, and wherein said level detection circuit detects a potential of ~~a predetermined terminal at least one~~ of said plurality of external data terminals when said control information is inputted, and said data transfer circuit determines said bus width depending on a combination of potentials of ~~a group of~~ the predetermined external data terminals.

2. (currently amended) The nonvolatile storage device according to claims 1, wherein eight terminals are provided in total as said plurality of external data terminals and the potentials of four external data terminals are detected by said level detection circuit.

3. (currently amended) The nonvolatile storage device according to claim 2, wherein when said level detection circuit detects that the potentials of said four external data terminals are all higher than the predetermined potential, said data transfer circuit fetches the data

signal inputted to any one of among said plurality of predetermined external data terminals and then transfers the data signal to the internal circuit.

4. (currently amended) The nonvolatile storage device according to claim 3, wherein when said level detection circuit detects that a potential of a first terminal of said four external data terminals is lower than the predetermined potential, said data transfer circuit fetches the data signal inputted to any one of said plurality of predetermined external data terminals at a higher rate than a rate when the potentials of said four external data terminals are all higher than the predetermined potential and then transfers the data signal to the internal circuit.

5. (currently amended) The nonvolatile storage device according to claim 4, wherein when said level detection circuit detects that a potential of a second terminal of said four external data terminals is higher~~lower~~ than the predetermined potential, said data transfer circuit fetches the data signals inputted to the ~~four~~-external data terminals other than said four predetermined external data terminals and then transfers the data signals to the internal circuit.

6. (currently amended) The nonvolatile storage device according to claim 5, wherein when said level detection circuit detects that a potential of a third terminal of said four external terminals is higher~~lower~~ than the predetermined potential, said data transfer circuit fetches the data signals inputted to all of said eight external data terminals and then transfers these data signals to the internal circuit.

7. (previously presented) The nonvolatile storage device according to claim 6, wherein any one of said eight external data terminals is also used as a terminal to which a control signal is inputted.

8. (currently amended) The nonvolatile storage device according to claim 7, wherein said pull-up circuit ~~are~~ ~~also~~is formed on a same semiconductor chip ~~where~~as said controller ~~is formed~~.

9. (currently amended) The nonvolatile storage device according to claim 8, further comprising a volatile memory ~~for storing~~to store data, which is fetched from said external data terminals and is then transferred by said

data transfer circuit, before the ~~same~~ data is written to said nonvolatile memory.

10. (currently amended) The nonvolatile storage device according to claim 9, further comprising a timing generation circuit ~~for notifying~~ to generate a detection timing of signal for said level detection circuit by detecting ~~the~~ an input of said control signal.

REMARKS

Applicants note with appreciation the Examiner's allowance of Claims 1-10.

Claims 1-6 and 8-10 have been revised for clarity without affecting their allowability.

A further Notice of Allowance is respectfully solicited.

The Commissioner is hereby authorized to charge to Deposit Account No. 50-1165 any fees under 37 C.F.R. §§ 1.16 and 1.17 that may be required by this paper and to credit any overpayment to that Account. If any extension of time is required in connection with the filing of this paper and has not been requested separately, such extension is hereby requested.

Respectfully submitted,

By:   
Mitchell W. Shapiro  
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Stephen W. Aycock II  
Reg. No. 52,579

January 7, 2005